



7.3 EXPEDITIONARY ENERGY: THE MARINE CORPS' PERSPECTIVE

Colonel Bob Charette, Jr.

I have spent a lot of years as a serial abuser of energy, flying F-18s off of aircraft carriers. And so now I am here. Still, it is interesting when you look at what we are trying to do. We hope to realize our Commandant's vision of the future, and that is staged in 2025 when your standard barrel of oil costs about \$120, according to U.S. Energy Information Administration (EIA) estimates, and 76% of the world's proven oil reserves are in the hands of really bad people. As we have already heard, every \$10 increase in the cost of a barrel

Colonel Bob "Brutus" Charette, Jr., enlisted in the Marine Corps Reserves in 1985 and attended boot camp at Parris Island, SC. He then attended Officer Candidate School in Quantico, Virginia, and was commissioned August 1986. He has earned a B.S. in chemistry from Delaware Valley College, an M.B.A. from the University of Phoenix, and a master's of national security strategy from the National War College. Early in his career, he served with VMFA-235, 3d Battalion/3d Marines, VMFA-312, and VMFA-451. He was the Executive Officer of VMFA-314, the Commanding Officer of VMFA-323, and the Operations Officer for Marine Aircraft Group 11. He also had a tour with Joint Staff J8. Colonel Charette currently is the Director, Expeditionary Energy Office. Colonel Charette participated directly in the following combat operations: Operation Desert Storm, Kuwait/Iraq; Operation Southern Watch, Iraq; Operation Deliberate Force, Bosnia; Operation Enduring Freedom, Afghanistan; and Operation Iraqi Freedom, Iraq. His awards include the Defense Meritorious Service Medal with two gold stars, Air Medal with combat distinguishing device, Air Medal Strike/Flight Award numeral six, Navy and Marine Corps Commendation Medal with combat distinguishing device and two gold stars, Navy and Marine Corps Achievement Medal, and seven Sea Service Deployment ribbons. He has earned "Top Ten" honors with Carrier Air Wings 8 and 9. Colonel Charette was awarded the 1996 Alfred A. Cunningham Award for the Marine Corps' Aviator of the Year.

of oil pretty much exceeds the procurement budget of the Marine Corps by a billion dollars.

By 2025, we will be looking at a bill of \$4 billion coming at the department, if EIA is correct. And not only is that bill coming at us, but it is also coming at us from really bad people. As we have found in Afghanistan and just about every war we have ever fought in, some of that money goes right into the hands of the people that we are trying to get rid of. The process of moving supplies and fuel from Pakistan to Camp Leatherneck in Helmand Province, where our Marines are centered, takes about 45 days because those supplies must be delivered over some of the most dangerous terrain in the world.

As it turns out, a lot of the Marines' logistics support in Pakistan and Afghanistan is contracted. Some of those people are paying bribes to the Taliban and others. In fact, some experts estimate that as much as 10% of the money that we pay to contractors goes right into the hands of the Taliban, who then use it to build improvised explosive devices or buy weapons and ammunition to use against us. Then, once the fuel and other supplies get into Afghanistan, we have Marines on the road hauling it to the places where we need it or protecting those who are hauling it. So the Commandant's looking at the future. He is seeing 2025 as a train wreck when you talk about costs of fossil fuels, when you talk about who those fossil fuels belong to, and when you consider that our dependence on those fuels continues to grow.

So he has charged me to go out there and figure out ways to get our Marines off the road, make us more combat effective, and get us off of fossil fuels and onto alternate energy sources that impose less of a burden. So we have been pushing industry around a lot lately. We set up an expeditionary forward operating base in Quantico to try to do that. We invited about 200 different vendors to show us what they had. From those, we identified 27 that we thought had a product that we could bring to the field right away to help get us off the roads hauling fuel and water. In the near future, we are going to choose a couple of them and we are going to bring them to Afghanistan to see whether they can actually reduce the effort that we devote to hauling fuel and water.

So that is part of it. We also want to ensure that we can enhance our ability to provide combat effectiveness at a reasonable cost to the American people. We can agree from the outset that that process will invariably entail some cost. We want to make sure that the cost is reasonable. In the process, we hope to become more combat effective and less reliant on supply lines. We realize that there is little likelihood that liquid fuels can be totally removed from the battlefield. Maybe they will be made out of algae or whale dung or whatever—not our thing—but the Navy is going to figure that out and the Air Force is going to figure out what the next fuel is going to be or from where it is going to come.

And as Marines, we will just pick it up and make sure our equipment can use it. Deciding what fuel to use is not our lane. Our lane is at the expeditionary edge, finding those solutions that help make us an autonomous force.

There is another side of the issue that is also important. Marine operations will invariably intersect with the lives of the people who live in whatever country in which we are working. And that world is getting hotter; it is getting more crowded. Some places lack adequate fresh water. So one of the things we are looking at is whether we can provide leave-behind capabilities that will help the people who live in such places.

Recently, someone donated eight solar water purifiers to the DoD. About a month ago, we took them to Afghanistan and gave them to the Afghan people. Each of these purifiers produces 30,000 gallons of fresh water a day. The Afghans are ecstatic about the water; this is the first time they have ever had fresh water in their villages. But as soon as they got used to their new water supply, they asked is if they could plug their cell phones into the power supply. So, it is really interesting, what the availability of energy can do. Not only are we going to try to get ourselves off the road, but if we bring these things to others, then they become our friends, they are a little easier to deal with, they tell us where the bad guys are, and they help us out when we need it. And also it is the right thing to do, to take care of these folks.

This summer, U.S. Pacific Command (USPACOM) is going to test some other water-purification systems in Thailand. They will be looking at renewable solutions that can be turned over to the population when the exercise is over. Should sea-level rise reduce the availability of fresh water, we have to figure out how to take the water that is there, without a big demand for diesel. Today a typical Afghan farmer spends about \$500 a month for diesel, and he is not making that kind of income off his farm. So there is a desperate need to get these kinds of solutions out to those who currently have to rely on expensive fuels.

So hopefully I have provided some useful background on why the Commandant decided to create this office.